Algebras and Representation Theory 2010 vol.13 N1, pages 1-31

Hopf algebra orbits on the prime spectrum of a module algebra

Skryabin S.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

For a Hopf algebra H and an H-module algebra A module-finite over its center it is proved that there is an equivalence relation on a subset Spec f A of the prime spectrum of A which exactly corresponds to the orbit relation in case of group actions. A linearly compact topologically H-simple H-module algebra L P (A) have been associated with each P ε Spec fA . When A is noetherian and H-semiprime, it is shown that A has a quasi-Frobenius classical quotient ring. © 2008 Springer Science+Business Media B.V.

http://dx.doi.org/10.1007/s10468-008-9094-5

Keywords

Hopf algebra orbits, Module algebras, Prime spectrum